

Claims

1. A continuous process for the production of an elastomer-modified thermo-
plastic comprising
 - (i) obtaining graft elastomer D) that includes a grafted phase A), said D)
having residual moisture content of 1 to 50 wt.%,
 - (ii) introducing D) and thermoplastic resin B) through at least one inlet of
a compounding reactor operating under conditions calculated to melt
D) and (B) and to remove organic volatile components C), and
 - (iii) collecting a molten blend comprising A), D) and B),said reactor being equipped with a housing having a surface, a plurality of
kneading bars that provide kneading action and an exit zone, said kneading
bars conveying a portion of the molten blend towards the reactor inlet.
2. The process of Claim 1 wherein the graft elastomer D) is dewatered in at
least one of centrifuge and a dewatering extruder.
3. The process of Claim 2 wherein the graft elastomer D) is dewatered in a
centrifuge and a dewatering extruder connected in series to yield residual
moisture content of 10 to 23% relative to the weight of D).
4. The process of Claim 1 wherein said conditions include introducing
mechanical energy via the kneading action and thermal energy via the
surface, at a ratio between the mechanical and thermal energy of 4 : 1 to 1 : 6.
5. The process of Claim 1 wherein elastomer D) is selected from the group
consisting of butadiene rubber, acrylonitrile-butadiene rubber, styrene-
acrylonitrile-butadiene rubber.

6. The process of Claim 1 wherein said grafted phase A) is at least one member selected from the group consisting of styrene-acrylonitrile copolymer, polystyrene, polymethyl methacrylate, polyvinyl chloride, polycarbonate, polybutylene terephthalate, polyoxymethylene, polymethyl methacrylate, polyphenylene sulfide, polysulfone, polyether sulfone and polyamide .
7. The process according to Claim 1 wherein the thermoplastic B) is at least one member selected from the group consisting of styrene-acrylonitrile copolymer, polystyrene, polymethyl methacrylate, polyvinyl chloride, polycarbonate, polybutylene terephthalate, polyoxymethylene, polymethyl methacrylate, polyphenylene sulfide, polysulfone, polyether sulfone and polyamide.
8. The process of Claim 1 wherein the conveying by the kneading bars takes place in the exit zone.
9. A compounding reactor for processing thermoplastic material comprising
- (i) at least two axially parallel screws, each provided with a plurality of discs each having a perimeter and each having kneading bars arranged around its perimeter,
 - (ii) a housing enclosing fittings and containing at least two inlets and an exit,
 - (iii) a means for rotating the screws and
 - (iv) a heating/cooling system,

at least some of the kneading bars being at an angle to their direction of movement such that the rotating screws convey at least part of the material away from the exit and towards the inlets.

- 5 10. The compounding reactor according to Claim 9, wherein the kneading bars on three to five discs are set at said angle.
- 11. A molding composition produced by the process of Claim 1.
- 10 12. A molded article comprising the molding compositions of Claim 11.